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Teaching & Training

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Journalism academics are constantly looking for ways to improve their teaching practices. Foremost is the need to ensure students are equipped with the skills to help them shift seamlessly from classroom to newsroom. These skills are relatively easy to identify – for instance, produce and research story ideas, interrogate complex research material, and then present it in a way that can be understood by an identified audience. This paper focuses on an experimental online hypothetical news scenario in helping students develop these required skills to identify and research complex stories - often described as 'investigative pieces' - irrespective of the medium through which they are presented.

Adapting to the Teaching Environment

I began my academic career teaching politics in the early 1990s after about 12 years working as a journalist and political adviser. Like many new academics, I had no formal training in teaching. Then, there was no equivalent to the *Introduction to Tertiary Teaching* courses that many universities require academics to complete. I was told to 'teach' the requisite number of subjects, most of which did not relate to my previous working experience. I could only draw on my own experiences as an undergraduate and later postgraduate student. I drew from the approaches of those teachers I liked, and tried not to wander down the path travelled by those I felt were 'not on top of their material'. I tried to engage the students, and in the process quickly learned that they were somehow more interested in my life experience and practical skills than they were in the theory that provided a context for my career. My students didn't realise that such 'real life' examples were grounded in theory, and thus provided more than the reflective musings of a former journalist and spin doctor.[1]

Students' interest in the 'how to' as opposed to the 'why' became even more noticeable when I swapped from teaching politics to journalism. It also required a teaching approach, which was built around the need for students to develop a career-focused skill set as opposed to the broad liberal arts education with its emphasis on the 'why' over the 'how to'. Initially, I taught subjects which I wondered whether I was competent to teach. As with most academics placed in a similar situation I relied on the tried and true – I over-prepared for lectures and set all sorts of tutorial tasks that I believed would challenge and satisfy the students, which seemed to work fairly well according to the students' evaluations. Nevertheless, I began to look for new ways of teaching that would engage students at a higher level, cater for their differing learning styles, and develop the skills they required to be job ready upon graduation.

My search began with the belief that the classroom experience should, as closely as possible, mirror the realities of the newsroom. The immediate challenge is to satisfy the differing learning styles of the many students who pass through journalism programs. As Felder and Soloman (1999) argue, students absorb and respond to information in different ways. Learners, they contend, can be: (a) active or reflective; (b) sensing or intuitive; (c) visual or verbal; and (d) sequential or global.

The various approaches are summarised in Table 1.

Table 1: Felder and Soloman's typology of learners

Active learners	• Retain and understand information most effectively by applying or discussing it. • Like group work. • Dislike lectures that involve note taking without practical components.
Reflective learners	• Like to think about the information they have received before seeking to apply it. • Tend to prefer working alone. • Dislike lectures.

Sensing learners	• Like learning facts. • Prefer to solve problems through traditional methods. • Dislike surprises. • Are patient with details, good at memorizing facts and like hands-on work. • Tend to be practical and careful. • Dislike courses that have no apparent relevance to the 'real world'.
Intuitive learners	• Tend to enjoy discovering possibilities and relationships. • Like innovation, resist repetitive tasks. • Grasp new concepts easily, are comfortable with abstract concepts. • Work faster and tend to be more innovative than sensory learners. • Don't like courses that involve memorization and routine calculations.
Visual learners	• Like to see information presented in an interesting way, via pictures, charts, diagrams, documentaries.
Verbal learners	• Prefer words, in both the written and spoken form.
Sequential learners	• Learn in a linear fashion, that is step by step. The learning experience takes a logical path. • Embrace the learning block approach
Global learners	• Tend to absorb information in an apparently random fashion. • The understanding often doesn't come until the end of the project, whereas sequential learners learn along the way.
Source: Adapted from Felder, R.M. and Soloman, B.A., *Learning Styles and Strategies*. Accessed from www.ncsu.edu/felder-public/ILSdir/styles.htm on November 25, 2005.	

The work of Felder and Soloman highlights the difficulties academics face in designing subjects to cater to different learning styles. This is further reinforced by the News Views website (www.newsviews.info/techbytes04.html) which suggests that learners may employ a range of different strategies when absorbing and interpreting information:

> Although people generally favour one learning style, they are not solely able to learn through this method and have utilized all styles of learning throughout their life. Understanding their preferential learning style is useful for the purpose of facilitating an individual's optimum learning environment. It would also be wise to note here that learning styles should not be looked at in isolation and many factors such as interest and motivation have as great (usually greater) an influence on the learning outcomes (*News Views;* accessed November 30, 2005).

For their part, Felder and Soloman suggest their students undertake an online quiz (www.engr.ncsu.edu/learningstyles/ilsweb.html) to give them an insight into their own learning preferences. The various combinations confirm the primary challenge teachers face, namely to present information in ways that will appeal to their students' learning preferences.

A second challenge relates to the designing of online courses. According to *News Views,* catering for the different learning strategies of students can be achieved by '[v]arying content, varying the way in which information is presented, varying the way in which tasks can be completed.' *(*ibid., *News Views).* The key to successful online programs is to maintain the students' motivation, which vary significantly. Some students are genuinely keen to absorb all the information or skills they require to prepare them for a chosen career. Others may not be as committed, perhaps because they are unsure of career preferences, or they question the merits of a particular subject.

Finally, teaching strategies are often influenced by class size. The traditional lecture format is effective in conveying information to large groups, but does not provide an environment in which subtleties, particularly skill-based ones, can be discussed. Nor does it help teachers identify students who may be struggling to grasp fundamental concepts. Tutorials and workshops or laboratories can help to rectify this, but only to a point. Potentially, online teaching can also be problematic, appealing to self motivated students on the one hand, but allowing those who are not as driven or are struggling to fall through the cracks. One approach that potentially caters for these variables in a journalism teaching environment is Problem Based Learning (PBL).

Problem Based Learning

The origins of PBL can be seen in the writings of Dewey (1910 and 1944), Piaget (1954), Bruner (1959 and 1961), and Rogers (1969). It is also often linked to the writings of Plato (Meadows, 1997). As a pedagogic approach, it appears to have its origins in the medical program run by McMaster University in Canada in the 1950s and 1960s, although its application has since extended well beyond the medical field (Gijbels et al, 2005). Typical PBL models are built around a number of fundamentals, including: (a) student centred learning; (b) the use of small groups; (c) tutors/ lecturers as facilitators; (d) the introduction of 'authentic' problems at the beginning of the class or course, certainly before any directed learning has taken place; and (e) the acquisition of knowledge and problem solving skills through the task or series of tasks (Barrows, 1996).

The appeal of PBL is that it seeks to mirror, as accurately as possible, the real-life experiences people are exposed to once they move from the classroom to the 'real world' (Duch, Allen and White, 1998; Bigelow, 2004; Pedersen and Liu, 2003; Wood, 2003). It is a form of experiential learning (Kolb,1984) that enables students to deal with the type of problems they are likely to confront in their professional lives. In true journalistic fashion, the model can be adapted to enable students to work individually or in small groups. At the end of the day, students receive the training that, hopefully, will enable them to develop a set of core competencies that will boost their job prospects.

Clearly, the long-term acceptance of PBL as a pedagogical tool in a journalism environment will depend on a range of factors. Convenience - for the lecturer and students - is just one factor. Another factor is how PBL will compare with other teaching methods in maintaining academic standards. This has been examined by a number of academics across a range of disciplines, including Wigen et al, (2003); Willis et al, (2002); Gijbels et al,(2005), and Bigelow (2004). A key study by Albanese and Mitchell (1993, cited in Gijbels, 2005) found that while medical students found PBL more 'nurturing and enjoyable than conventional instruction,' there were some downsides. However, a study by Dochy (2003) found that students who had participated in PBL subjects had better knowledge-bases than non-PBL students. Nevertheless, the studies cited reveal that students who undertake PBL appear not to be disadvantaged when compared with their non-PBL counterparts, and do experience greater satisfaction levels.

PBL has been embraced by a number of senior Australian journalism educators, including Sheridan-Burns (1997; 1999), Green (1991) and Meadows (1997). My paper builds on this trend while seeking to incorporate the technological advances that have taken place within the past decade (see, for example, Gunaratne, 1996, and Ketterer, 1998). In this case, PBL in a multimedia platform has been adopted for a third year level *Investigative Journalism* subject offered by the School of Journalism and Creative Writing at the University of Wollongong. The subject is designed to help students develop research skills deemed as mandatory for all forms of journalism, not just that which is tagged 'investigative'. Thus, in 2007, all second year journalism students must successfully complete this research skills-based subject before being permitted to enrol in more technically focussed subjects**.**

The *Investigative Journalism* subject employs a 'scaffolding' approach to learning. Which means each week, students are required to attend a formal one-hour lecture, and a two-hour workshop built around a hypothetical delivered on a WebCT Vista platform. Prior to the workshops they are expected to work on the hypothetical. Students are provided access to the hypothetical website once their enrolment in the subject is confirmed. Each week students are given access to new data. Some of this information is time released in sequence (see Frame 1). Other information is only accessible once they have completed set tasks. These might include multiple choice quizzes, story plans, research tasks, or even reflective pieces. Having completed the self-directed tasks, students are then required to bring their material to the workshops where they complete additional tasks individually and in small groups.

While the hypothetical is web-based, the various phases of the project are designed to help students develop both traditional and 'new', that is technology-based, skills. Students are advised early in the course that web-searching and data analysis using computer software should be considered complementary to the traditional boot leather approach to reporting, not an alternative form of inquiry that encourages desk-bound journalism. At all points of the hypothetical, students are required to talk to 'real' people in order to develop their interviewing skills and, in the process alerting them to the importance of non-verbal cues which can often be concealed via written or electronic responses.

The *Birds of Paradise* hypothetical

The hypothetical was initially developed to provide material for a series of short training courses I conducted for journalists and journalism students in PNG.[2] It is built around a 'realistic' scenario – in this case a smuggling ring involving the Bird of Paradise, *Paradisaea raggiana*. Bird smuggling was an ideal topic as it is considered a serious problem in PNG and the Indonesian-controlled West Papua.

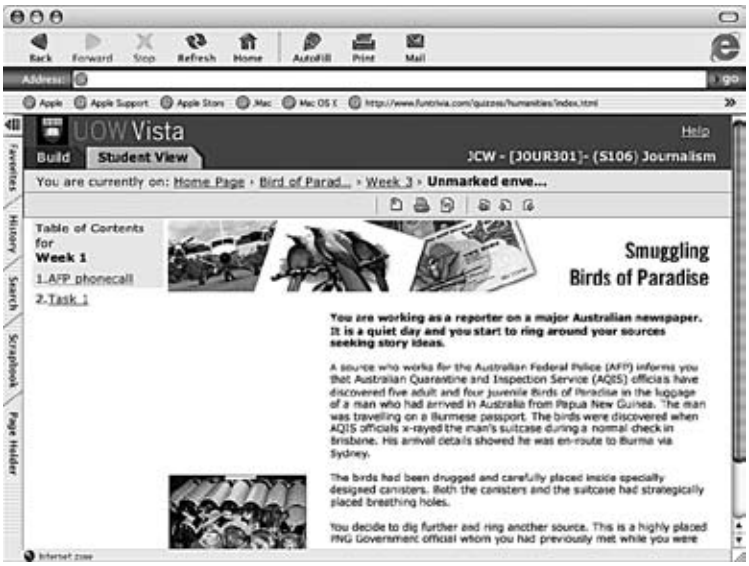
In its first iteration, the plan was to help participants develop traditional research skills, while introducing them to the additional benefits offered by the internet and data analysis software, primarily Microsoft Excel and Microsoft Access. However, the first courses were not web-based as patchy internet connections in Port Moresby and Madang, where the program was being conducted, meant that its success could not be guaranteed. Instead, traditional small-group workshops were held for 15 to 20 participants. The participants were asked to indicate how they would tackle the story. At different points, participants were provided with information to enable them to move onto the next phase of the exercise, which ultimately led to them identifying the leaders of the smuggling ring.

Given the technological constraints, the initial small group workshops were more an exercise in story planning than information gathering. However, the strategy proved effective with participants supporting the traditional small group workshop format. Since then, the format has been developed and trialed with various groups, including more PNG journalists and students, a group of Indonesian journalists and editors, and three cohorts of undergraduate and postgraduate students in Australia. The latest iteration of the hypothetical, which has been developed for both on-shore and off-shore teaching, can be utilized as either a web-based option, or a pull-apart traditional teaching option that utilizes both planning and/or research phases.

The task begins when students log onto the hypothetical via WebCT Vista. Immediately they start to role play as a journalist in a newsroom on a quiet news day. The journalist is under pressure from the chief-of-staff to produce a story, so begins to ring his contacts. Because the web-based hypothetical is being used by Australian students, they have been situated in an Australian newsroom. (With minor changes it could be adapted to accommodate students anywhere in the world). An Australian Federal Police (AFP) contact tells the journalist that Australian Quarantine and Inspection Service (AQIS) officers had discovered five adult and four juvenile *Birds of Paradise* in the luggage of a man who had arrived from PNG earlier that day. The birds were discovered when the man's luggage was x-rayed. He was subsequently arrested and found to be traveling on a fake Burmese passport. The student is presented with this information in written form (see Frame 1).

The story takes the journalist/student on a 13-part odyssey in which they are set a range of tasks. These include tracking down the real identity of the arrested courier (his identity goes through a number of changes over the course of the investigation), and establishing the extent of the smuggling problem, who is involved, and where the birds are headed. The investigation takes the journalist/student from the comfort of their Australian newsroom to Port Moresby and the wilds of the PNG Highlands.

Frame 1:



Along the way they are set a series of challenges, all designed to replicate as closely as possible the tasks they would be expected to confront or undertake if researching this story for real. These tasks – and the background information that leads to them - are outlined in the weekly table of contents (accessible from the left hand tool bar on the web site). For example, early on they are told that the birds were drugged and placed in specially designed canisters (pictured in Frame 1). They are then asked to investigate what drugs could potentially be used to subdue the birds, how long they work and what are the potential side effects? The answers to these questions, which they can obtain by talking to a veterinarian, wildlife expert, AQIS, or online, provides an insight into the possible destinations the birds might be headed for, or at least the period of time they will remain unconscious before they have to be re-dosed.

While most journalists are comfortable dealing with local sources that they have built up over a period of time, or share cultural and ethnic similarities, what about being parachuted into a country whose culture and customs they have little knowledge of? In this particular scenario, the student is advised that they have spent some time previously working in PNG. While this had enabled them to develop some local contacts who could potentially help them with the story, they were still relatively ignorant of local culture and customs. With this in mind, they were asked to conduct some research into the *Wantok* system[3] and familiarize themselves with the local currency and transport arrangements, particularly from Port Moresby to Mt Hagen where their investigations would take them.

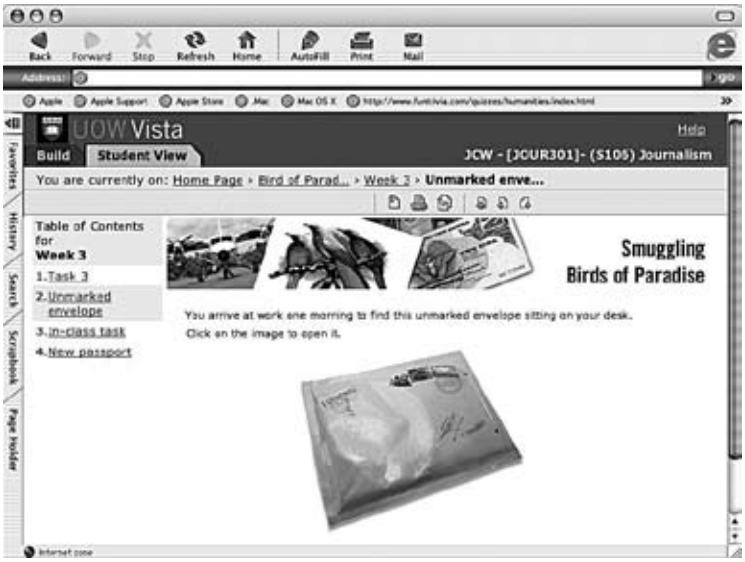
The online hypothetical can be likened to a multi-dimensional jig-saw puzzle, albeit with a difference. Whereas with traditional jig saw puzzles all the pieces are laid out, in this hypothetical students are only provided with a small number at the start of each week. These pieces (in the form of clues or information) are released through Web CT Vista's time mechanism (see Frame 1). They have to use this information to

find other pieces in the puzzle, some of which may be red herrings. The students have to interrogate the data to see which is genuine and which is not.

The weekly tasks are so structured that students have to tackle them logically. While this would probably disadvantage the global learners, this strategy has been deliberately adopted so that they learn to work forensically. With the time release mechanism, students have plenty of scope to conduct the home-based tasks well before class begins. This approach is designed to cater for both the active and reflective learners, and the preferential learning styles of sensing and intuitive learners. While the hypothetical is self-directed, students can also choose to collaborate in small groups. This can include sharing the task load or even brainstorming the information they have gathered.

Either way, students are expected to have tackled the pre-workshop tasks. This means that all will be able to participate in the small group forums in class each week. These get-togethers are designed to replicate daily news conferences or team meetings (in the case of on-going complex investigations). Each week the students are asked to consider whether they have sufficient information to publish the story, or whether they would be better advised to hold off until an additional piece or pieces of the puzzle fall their way. In some instances they are asked to convince an impatient chief-of-staff or editor that the story is not quite ready, and in these situations are expected to argue cogently what the consequences of prematurely publishing or broadcasting the story might be (legally, ethically, or simply alerting the smugglers that you are on to them).

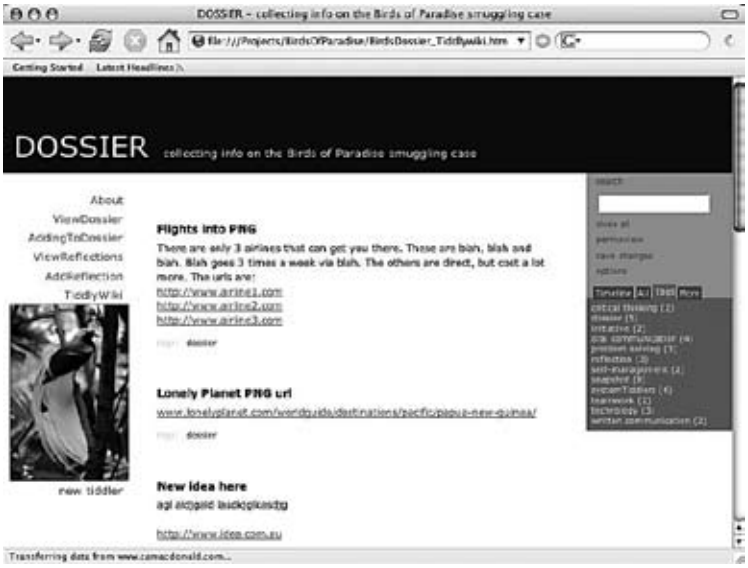
Frame 2:



To appeal to both visual and verbal learners, the interactive on-line hypothetical site has been designed to engage visually. For example, in Week 3 (See Frame 2), students are asked to click on a brown paper bag (this is a story about corruption after

all). The bag links to a number of documents, including arrival and departure forms for the man arrested in Sydney with the *Birds of Paradise*. To maintain the authenticity of the hypothetical, graphic designers have mocked up copies of invoices from hotels various people stayed at, telephone records and even a passport. The first screen the students see when they open the hypothetical is an artist's mock-up of the Birds in their specially-designed canisters. Towards the end, they also see photographs of an illegal bird auction that they had witnessed.

Frame 3: The Tiddly Wiki Dossier



Verbal learners are also catered for. Throughout the hypothetical, students are asked to locate an array of written documents and to query experts on a range of issues, including the drugging of birds. They are also given access to written documents, transcripts and voice recordings of telephone conversations and press conferences, interpret these documents, and in some instances using Microsoft Excel to look for patterns in telephone accounts and hotel invoices that might provide them with important insights into the smuggling operation (its size and potential relationships between people staying at the various hotels during the identified time frames). There are limitations, however, to how far the real scenario can be replicated. For example the hypothetical leads to a press conference at the end where the wrongdoers are exposed. While the students don't get to participate in a real media conference in the sense of posing questions to 'real' people, they do 'participate' in the sense that they prepare a list of questions they would ask if given the opportunity to confront the suspects. These questions are then discussed and honed in small groups.

The difficulties posed by the mock press conference approach have been identified by Cameron (2001) who is one of the pioneers of the PBL approach in Australia through his *Flood* hypothetical (www.rocketonline.com.au/flood). Cameron believes that while work still needs to be done to overcome the technological hurdles, 'chatterbot' software such as ALICE (Artificial Linguistic Internet Computer Entity) designed

by Wallace in 1995 may enable students to ultimately interrogate 'people of interest' online themselves. According to Cameron, programs such as ALICE filter questions posed by students, and then respond with an answer that makes sense and gives the student the impression that their questions are being answered by a 'real person'. This has considerable potential for journalism courses.

Challenges of the Hypothetical

There are plenty of challenges embedded in the hypothetical to keep even the most zealous of students working. The amount of information students accumulate is limited only by their research skills and motivation. While this might give the suggestion that under-performing students can potentially lose their way, particularly given that the hypothetical is semester-long, there are a number of built-in safeguards to ensure this does not happen.

The first has to do with the role of the tutor as facilitator; the second links in with the use of small group work. Facilitators can monitor the progress of individual students (or groups of students), helping to refocus their attention if they are venturing too far down a dead end, questioning particular strategies and even suggesting alternative research approaches. The use of small groups is designed to provide students with a supportive environment in which to discuss the findings they have discovered individually, to analyse material, or to discuss strategies.

While small group work may not appeal to all students, this particular exercise is designed to achieve a balance between individual work and peer-support. The scheduling of small group work also provides an environment in which the facilitator can quietly observe the progress of class members. Finally, students can be monitored through their own on-line observations. These are made possible through the inclusion of a Dossier in the Web-CT program (see Frame 3). The latter is important in a number of aspects.

Firstly, given the large amount of material students are likely to accumulate – much of it online – during the course of the semester, the Dossier provides them with a filing tool. The ability to file information and later access it on demand is a major journalistic skill. The Web-CT Vista dossier helps the student manage the information they accumulate. Dossier also encourages students to reflect on their work. It has a system called *Tiddly Wiki*, which enables students to jot down comments as they come to mind.

Assessment of Students

Students are expected to produce a number of stories throughout the semester based on the research they accumulate. The first story is produced in Week 2. Students are asked to write a backgrounder on the *Bird of Paradise* (where it can be found, the different species, what they eat, mating habits, the survival rate of the young and the species in general). In Week 3 students write a side-bar, this time using a combination of on-line and self-sourced 'expert sources' about the smuggling of birds, the types of drugs used and their potential side effects. Later in the semester they are asked to write another story, this time from a cultural perspective, which looks at why PNG

highlanders are threatening the survival of the *Bird of Paradise*. Finally, students write a series of news and feature, which bring all the strands of the story together. It is the last series of stories that effectively highlight the skills the students have developed. Those who have good organizational skills and are keen to interrogate the abundant information accumulated over the semester can produce some outstanding stories. This task probably caters more to the reflective than the active learner, although as Felder and Soloman point out, there is usually a little of the active and reflective learner in all of us.

The stories and tasks vary in length and complexity. The initial story plans are open-ended to encourage the students to consider the various directions the story could potentially take. The sidebar stories do have strict limits placed on them. These can vary, depending on the amount of information the tutor is seeking. However to encourage the students to write tightly, I tend to limit the 'drugging' and Bird of Paradise background stories to 500 words each. The wrap up is open to negotiation in terms of length, although students are expected to produce one or two news stories, including a front page lead. They are also required to produce a detailed feature or features. How they tackle the last part is open to them, with some opting to write a main story with two or three sidebars and an opinion piece. The key is to cover all the material and to present it in a way that will capture and retain reader interest, within the parameters normally encountered in a newspaper.

The complexity of the hypothetical suits the sensing learner, who likes to accumulate facts and solve problems through well-established methods. They might not, however, like the occasional surprises thrown in their path. The intuitive learners tend to relish tracking the relationships that emerge, particularly the changes of identity and the complex links produced by PNG's *Wantok* system. The sensory learners tend to enjoy the challenges posed by the myriad of information, whereas the intuitive learners may feel constrained by the piecemeal nature of the steps they have to work through. The latter works to the benefit of the sequential learner, as opposed to the global learner, who tends to be more interested in the big picture rather than the details. While the global learner could probably bumble through this task and arrive at the right conclusion, they would not be able to present their findings with the detail likely to be presented by the sequential learner.

This PBL-based hypothetical involves a degree of conjecture. To test its effectiveness compared with a more traditional teaching approach, students in the 2006 cohort will undertake Felder and Soloman's quiz at the beginning of semester. This will not only help the students understand their own learning preferences, but also provide a potential guide as to how they will cope with different aspects of the hypothetical. The students will be asked to submit their learning profiles and these will be then used to interpret individual and group results at the end of semester. It is anticipated that the feedback from these surveys will then be used to refine how the hypothetical is taught and the assessment conducted.

Conclusion

This hands-on hypothetical has been well received in various iterations by different groups of students and journalists. They particularly like the fact that it is modeled on a real-life scenario and become wrapped up in solving the 'whodunit'. The latest

iteration – the fully online Web-CT Vista version - will be trialed with journalism students for the first time in Semester 1, 2006 at the University of Wollongong.[4] The strength of the hypothetical is that by providing limited, albeit important information, students will quickly realize that they would not be able to complete the various tasks that make up this story by simply sitting at their desk and relying on their computer and phone. To work the story through to a realistic conclusion they are required to get out and about, visiting PNG and snooping around pubs and other venues – albeit in a simulated online environment – to identify people who might be able to help them locate the information they require. The hypothetical reinforces the importance of sources and networking. It shows how journalism can be hard – even dangerous – work. But it also shows how, with persistence, care and good research skills, a difficult journalistic jigsaw can be pieced together.

The hypothetical shows how PBL can be adapted for journalism education and in the process cater to the learning needs of a range of different students. Nevertheless, a complex hypothetical certainly involves a significant time commitment on the part of the designer. In this case, the *Bird of Paradise* hypothetical took more than 100 hours to develop, research and write. On top of that, there was the time required to convert it to an on-line format with all the accompanying graphics.

A single hypothetical has a limited life span, particularly given the tendency of students to 'share' their work from semester to semester or from year to year. One solution would be to develop a collaborative collection of hypotheticals that would be accessible to journalism teachers across a range of institutions. This would enable teachers to lighten their preparation load and, in the process, share their work with colleagues and draw from the experience of others.

This latter point perhaps explains my reluctance to include too much of the hypothetical's detail in this paper. I don't want students in their first tutorial conducting a Google search and finding an explanation of what their semester's work will lead to. There is nothing worse than knowing the conclusion to a novel before you start it. However, I am prepared to discuss it more fully with other journalism educators.

Endnotes:

1. For example, election campaigns. Political parties draw on a range of disciplines, including politics, psychology, economics, marketing and media relations when planning their election campaigns. On a daily basis, spin doctors 'massage' messages so that they appeal to people. Good spin doctors are well versed in the techniques that enable them to 'sell' the messages their political masters want people to believe. While this is particularly noticeable during election campaigns, it is also evident on a daily basis, particularly when the party is seeking to package bad news, or is engaged in crisis management. In all cases, theory underpins the practical approaches adopted. From a theoretical perspective, successful political parties seek to play an agenda-setting role. This gives voters the impression that they are 'fprward-thinking, in charge and full of ideas. Governments that are 'tired' tend not to be agenda-setters. For example, US President George Bush has come under criticism in his second term for being 'out of touch' and 'unpopular'.
2. PNG courses were conducted between 2001 and 2004. They were funded by Ausaid through the Centre for Democratic Institutions at ANU. The courses were organised by

John Wallace, formerly director of the Centre for International Journalism at the University of Queensland, and now director of the Asia Pacific Journalism Centre in Melbourne. The programs were designed for both established journalists and PNG journalism students. Courses were conducted in Port Moresby and Madang. The December 2004 program included 4 journalists from the Solomon Islands. The author also trialed the hypothetical with a group of senior Indonesian journalists who were brought to Australia for a program run by Murdoch University with funding from Ausaid and the Australia-Indonesia Institute.

3. In Pidgin, Wantok means 'one talk'. It refers to a tribal or familial system in which people owe loyalty to other members. While this provides a supportive system, it can also lead to corruption and favouritism. Under the Wantok system, PNG politicians find themselves under great pressure to provide for their tribe.
4. It has been developed under a faculty service agreement between The School of Journalism and Creative Writing and the Centre for Educational Development and Interactive Resources (CEDIR) at the University of Wollongong.

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